

# MAYANK RAJ

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## Education

University of Engineering and Management, Jaipur

July 2022 - Present

- Computer Science and Engineering | CGPA: 8.9

Bihar School Examination Board, India

April 2020 - February 2022

- Class XII, *Percentage*: 72%

Bihar School Examination Board, India

March 2019 - February 2020

- Class X, *Percentage*: 82.3%

## Skills

**Languages:** C, Java, Python, JavaScript, SQL

**Web Technology:** React, Tailwind CSS, Next.js

**AI/ML:** Scikit-Learn, TensorFlow, PyTorch, Pandas, NumPy

**Tools:** VSCode, Postman, Linux, Git, Github, Docker

**CS Concepts:** DSA, OOP, DBMS, OS, Networks

## Work Experience

EduSkills | AI-ML Intern | Remote

July 2024 - September 2024

- Trained and optimized deep learning models using **TensorFlow** and **PyTorch**, achieving a **20%** improvement in model accuracy compared to initial benchmarks.
- Implemented object detection systems, reducing error rates by **25%** through optimization techniques and fine-tuning models.
- Managed data preprocessing and feature selection for a dataset of **10,000+** images, improving the model's efficiency and scalability.

## Projects

**AI-Powered Finance Management System** | [GitHub](#) | [Live Demo](#)

Tech Stack: Next.js, Tailwind CSS, Supabase, Prisma, Gemini AI, Inngest, Resend, Recharts

- Built a full-stack finance management system supporting **multi-account** tracking for expenses and income.
- Integrated **Gemini AI** with OCR to extract transaction data from receipts, achieving **92% accuracy**.
- Automated monthly summary reports via **Inngest** and **Resend**, reducing manual reporting effort by **100%**.
- Implemented interactive visualizations (pie/bar charts) with **Recharts** for budget insights.

**Diabetes Prediction System using ML** | [GitHub](#) | [Live Demo](#)

Tech Stack: Python, Scikit-Learn, Pandas, NumPy, Flask

- Built a machine learning model using medical datasets with **720 cases** and **17 features** to predict diabetes risk.
- Applied preprocessing, feature engineering, and model tuning, achieving **92% accuracy** and **91% recall**.
- Conducted comparative analysis of Logistic Regression and Decision Tree models; optimized for performance and interpretability.

**Real-Time Video Call App** | [GitHub](#) | [Live Demo](#)

Tech Stack: React, WebRTC, WebSocket

- Designed a secure peer-to-peer video call platform with real-time room creation and user-based connection handling.
- Implemented **WebSocket-based** signaling and ensured **cross-device compatibility** with responsive UI.
- Enabled stable video communication for up to **50+ concurrent users**, minimizing latency by **15%**.

## Achievements

- **Top 5% Performer – NPTEL DBMS Course** by IIT Kharagpur

## Certifications

- Database Management System - NPTEL (IIT Kharagpur)
- Python - NPTEL (IIT Madras)
- Data Structures and Algorithms (Infosys Springboard)

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